
 OIPE  
 INFORMATION  
 JUN 04 2001  
 PATENT & TRADEMARK OFFICE  
 (Use Rev

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.  
0050.1491-005APPLICATION NO.  
09/826,752INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION

May 24, 2001

(Use several sheets if necessary)

APPLICANT  
Leonard P. Guarente et al.FILING DATE  
April 5, 2001

GROUP

## U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AU	Egilmez and Jazwinski, "Evidence for the Involvement of a Cytoplasmic Factor in the Aging of the Yeast <i>Saccharomyces cerevisiae</i> ," <i>Journal of Bacteriology</i> , 171 (1):37-42 (1989).
	AV	Sainsard-Chanet and Begel, "Transformation of Yeast and <i>Podospora</i> : Innocuity of Senescence-Specific DNAs," <i>Mol Gen Genet</i> , 204:443-451 (1986).
	AW	Miura and Sato, "Cellular Senescence in Yeast Caused by Carbon-Source Starvation," <i>J. Biochem.</i> , 76: 593-601 (1974).
	AX	Miura and Yanagita, "Cellular Senescence in Yeast Caused by Carbon-Source Starvation," <i>J. Biochem.</i> , 72(1): 141-148 (1972).
	AY	Longtine, et al., "Telomere-Mediated Plasmid Segregation in <i>Saccharomyces cerevisiae</i> Involves Gene Products Required for Transcriptional Repression at Silencers and Telomeres," <i>Genetics</i> , 133:171-182 (1993).
	AZ	Lee and Gross, "Conditional Silencing: The <i>HMRE</i> Mating-Type Silencer Exerts a Rapidly Reversible Position Effect on the Yeast <i>HSP82</i> Heat Shock Gene," <i>Molecular and Cellular Biology</i> , 13(2): 727-738 (1993).
	AR2	Sussel and Shore, "Separation of Transcriptional Activation and Silencing Functions of the <i>RAP1</i> -Encoded Repressor/Activator Protein 1: Isolation of Viable Mutants Affecting Both Silencing and Telomere Length," <i>Proc. Natl. Acad. Sci. USA</i> , 88: 7749-7753 (September 1991).
	AS2	Schnell, et al., "Genetic and Molecular Characterization of Suppressors of <i>SIR4</i> Mutations in <i>Saccharomyces cerevisiae</i> ," <i>Genetics</i> 122:29-46 (May 1989).
	AT2	Marshall, et al., "Functional Domains of <i>SIR4</i> , a Gene Required for Position Effect Regulation in <i>Saccharomyces cerevisiae</i> ," <i>Molecular and Cellular Biology</i> , 7(12): 4441-4452 (1987).

EXAMINER

DATE CONSIDERED

4/10/03

RECEIVED  
JUN 14 2001  
TECH CENTER 1600/2900

TYPE 368  
JUN 04 2001  
PATENT & TRADEMARK OFFICE

PTO-1449 REPRODUCED

ATTORNEY DOCKET NO.  
0050.1491-005APPLICATION NO.  
09/826,752INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION

May 24, 2001

(Use several sheets if necessary)

APPLICANT  
Leonard P. Guarente et al.FILING DATE  
April 5, 2001










GROUP

TECH CENTER 1800/2900

## U.S. PATENT DOCUMENTS

EXAM- INER INI- TIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	AU2	Ivy, et al., "Map Positions of Yeast Genes <i>SIR1</i> , <i>SIR3</i> and <i>SIR4</i> ," <i>Genetics III</i> : 735-744 (1985).
	AV2	Aparicio, et al., "Modifiers of Position Effect are Shared Between Telomeric and Silent Mating-Type Loci in <i>S. cerevisiae</i> ," <i>Cell</i> , 66:1279-1287 (1991).
	AW2	Lundblad and Szostak, "A Mutant with Cell Defect in Telomere Elongation Leads to Senescence in Yeast," 57: 633-643 (1989).
	AX2	Jazwinski, "Genes of Youth: Genetics of Aging in Baker's Yeast," <i>ASM News</i> , 59(4): 172-178 (1993).
	AY2	D'Mello, et al., "Molecular Analysis of a Young-Specific Gene in the Yeast <i>Saccharomyces cerevisiae</i> ," <i>Abstracts of the 92nd General Meeting of the American Society for Microbiology</i> , Abstract H-284, pg. 230 (May 26-30 1992).
	AZ2	Egilmez, et al., "Specific Alterations in Transcript Prevalence During the Yeast Life Span," <i>The Journal of Biological Chemistry</i> , 264(24): 14312-14317 (1989).
	AR3	Jazwinski, et al., "Replication Control and Differential Gene Expression in Aging Yeast," <i>Molecular Biology of Aging</i> , pp. 189-203 (1989).
	AS3	Muller, et al., "Calendar Life Span Versus Budding Life Span of <i>Saccharomyces cerevisiae</i> ," <i>Mechanisms of Ageing and Development</i> , 12(1): 47-52 (1980).
	AT3	Urrestarazu and Jauniaux, Protein Sequence Database, Accession Number S38114 (1994).

EXAMINER

DATE CONSIDERED



4/11/03

Substitute Form PTO-1449 (Modified)  <b>Information Disclosure Statement by Applicant</b> (Use several sheets if necessary)  (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office		Attorney's Docket No. 13407-017005	Application No. 09/826,752
	Applicant Leonard P. Guarente et al.			
	Filing Date April 5, 2001		Group Art Unit 1631	

## U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
JCB	AA	5,565,323	10/15/96	Parker et al.			
JCB	AB	5,705,350	01/06/98	Mudryj et al.			
JCB	AC	5,744,300	04/28/98	Linskens et al.			
JCB	AD	5,817,782	10/06/98	Jazwinski			
JCB	AE	5,840,493	11/24/98	Davis et al.			
JCB	AF	5,965,543	10/12/99	Campisi et al.			
JCB	AG	6,027,883	02/22/00	Herrnstadt et al.			
JCB	AH	6,146,831	11/14/00	Davis et al.			
JCB	AI	6,291,172	09/18/01	Davis et al.			

## Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
JCB	AJ	WO 96/05850	02/29/96	WIPO				

## Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
JCB	AK	Allsopp et al., "Telomere length predicts replicative capacity of human fibroblasts", <i>Proc. Natl. Acad. Sci. USA</i> 89:10114-10118 (1992)
JCB	AL	Angello et al., "Cell Enlargement: One Possible Mechanism Underlying Cellular Senescence", <i>J. Cell. Physiol.</i> 140:288-294 (1989)
JCB	AM	Angello et al., "Proliferative Potential of Human Fibroblasts: An Inversive Dependence on Cell Size", <i>J. Cell. Physiol.</i> 132:125-130 (1987)
JCB	AN	Bertrand et al., "An Extrachromosomal Plasmid Is the Etiological Precursor of $\text{kalDNA}$ Insertion Sequences in the Mitochondrial Chromosome of Senescent <i>Neurospora</i> ", <i>Cell</i> 47:829-837 (1986)
JCB	AO	Cabib et al., "A Molecular Model for Morphogenesis: The Primary Septum of Yeast", <i>Curr. Top. Cell. Regul.</i> 8:1-32 (1974)
JCB	AP	Cristofalo and Kritchevsky, "Cell Size and Nucleic Acid Content in the Diploid Human Cell Line WI-38 During Aging", <i>Med. Exp.</i> 19:313-320 (1969)
JCB	AQ	Cristofalo et al., "Growth factors as probes of cell aging", <i>Exp. Gerontol.</i> 24:367-374 (1989)
JCB	AR	Cummings et al., "Excision—Amplification of Mitochondrial DNA During Senescence in <i>Podospora anserina</i> ", <i>J. Mol. Biol.</i> 185:659-680 (1985)
JCB	AS	Cziepluch et al., "Sequencing analysis of a 40.2 kb fragment of yeast chromosome X reveals 19 open reading frames including <i>URA2</i> (5' end), <i>TRK1</i> , <i>PBS2</i> , <i>SPT10</i> , <i>GCD14</i> , <i>RPE1</i> , <i>PHO86</i> , <i>NCA3</i> , <i>ASF1</i> , <i>CCT7</i> , <i>GZF3</i> , two tRNA genes, three remnant delta elements and a Ty4 transposon", <i>Yeast</i> 12:1471-1474 (1996)

Examiner Signature <i>JCB. Bruseca</i>	Date Considered 4/11/03
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

RECEIVED  
JAN 13 2003  
TECH CENTER 1600 2900

Substitute Form PTO-1449 (Modified)  <b>Information Disclosure Statement by Applicant</b> (Use several sheets if necessary)  (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office		Attorney's Docket No. 13407-017005	Application No. 09/826,752
	Applicant Leonard P. Guarente et al.			
	Filing Date April 5, 2001		Group Art Unit 1631	

### Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
J83	AT	Egilmez <i>et al.</i> , "Preparation and Partial Characterization of Old Yeast Cells", <i>J. Gerontol. Biol. Sci.</i> 45:B9-17 (1990)
J83	AU	Friedman and Johnson, "A Mutation in the <i>age-1</i> Gene in <i>Caenorhabditis elegans</i> Lengthens Life and Reduces Hermaphrodite Fertility", <i>Genetics</i> 118:75-86 (1988)
J83	AV	Guarente, "UASs and Enhancers: Common Mechanism of Transcriptional Activation in Yeast and Mammals", <i>Cell</i> 52:303-305 (1988)
J83	AW	Guarente and Kenyon, "Genetic pathways that regulate ageing in model organisms", <i>Nature</i> 408:255-262 (2000)
J83	AX	Harley <i>et al.</i> , "Telomeres shorten during ageing of human fibroblasts", <i>Nature</i> 345:458-460 (1990)
J83	AY	Hayflick, "The limited <i>in vitro</i> lifetime of human diploid cell strains", <i>Exp. Cell Res.</i> 37:614-636 (1965)
J83	AZ	Hayflick and Moorhead, "The serial cultivation of human diploid cell strains", <i>Exp. Cell Res.</i> 25:585-621 (1961)
J83	AAA	Jazwinski, "Longevity, Genes, and Aging", <i>Science</i> 273:54-59 (1996)
J83	ABB	Kenyon <i>et al.</i> , "A <i>C. elegans</i> mutant that lives twice as long as wild type", <i>Nature</i> 366:461-464 (1993)
J83	ACC	Koll <i>et al.</i> , "A 1100-bp Sequence of Mitochondrial DNA Is Involved in Senescence Process in <i>Podospira</i> : Study of Senescent and Mutant Cultures", <i>Plasmid</i> 14:106-117 (1985)
J83	ADD	Lazarus <i>et al.</i> , "Amplification of a Mitochondrial DNA Sequence in the Cytoplasmically Inherited 'Ragged' Mutant of <i>Aspergillus amstelodami</i> ", <i>Eur. J. Biochem</i> 106:663-641 (1980)
J83	AEE	Lumpkin Jr., <i>et al.</i> , "Existence of High Abundance Antiproliferative mRNA's in Senescent Human Diploid Fibroblasts", <i>Science</i> 232:393-395 (1986)
J83	AFF	McConnell <i>et al.</i> , "Temperate-sensitive Yeast Mutants Defective in Mitochondrial Inheritance", <i>J. Cell Biol.</i> 111:967-976 (1990)
J83	AGG	Mortimer and Johnston, "Life Span of Individual Yeast Cells", <i>Nature</i> 183:1751-1752 (1959)
J83	AHH	Müller, "Experiments on Ageing in Single Cells of <i>Saccharomyces cerevisiae</i> ", <i>Arch. Mikrobiol.</i> 77:20-25 (1971)
J83	AII	Müller, "Parental age and the life-span of zygotes of <i>Saccharomyces cerevisiae</i> ", <i>Antonie van Leeuwenhoek</i> 51:1-10 (1985)
J83	AJJ	Müller and Wolf, "A Correlation Between Shortened Life Span and UV-Sensitivity in Some Strain of <i>Saccharomyces cerevisiae</i> ", <i>Mol. Gen. Genet.</i> 160:231-234 (1978)
J83	AKK	Norwood <i>et al.</i> , "Dominance of the Senescent Phenotype in Heterokaryons Between Replicative and Post-Replicative Human Fibroblast-Like Cells", <i>Proc. Natl. Acad. Sci. USA</i> 71:2231-2235 (1974)
J83	ALL	Olovnikov, "A Theory of Marginotomy: The Incomplete Copying of Template Margin in Enzymic Synthesis of Polynucleotides and Biological Significance of the Phenomenon", <i>J. Theor. Biol.</i> 41:181-190 (1973)
J83	AMM	Orgel, "Ageing of Clones of Mammalian Cells", <i>Nature</i> 243:441-445 (1973)
J83	ANN	Palladino <i>et al.</i> , "SIR3 and SIR4 Proteins Are Required for the Positioning and Integrity of Yeast Telomeres", <i>Cell</i> 75:543-555 (1993)
J83	AOO	Pélissier <i>et al.</i> , "NCA3, a nuclear gene involved in the mitochondrial expression of subunits 6 and 8 of the Fo-F1 ATP synthase of <i>S. cerevisiae</i> ", <i>Curr. Genet.</i> 27:409-416 (1995)

Examiner Signature <i>J.B. Brusa</i>	Date Considered 4/11/03
EXAMINER: Initials of person considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

RECEIVED  
 JAN 13 2003  
 TECH CENTER 160012900

 Substitute Form PTO-1449  
 (Modified)

 U.S. Department of Commerce  
 Patent and Trademark Office

 Attorney's Docket No.  
 13407-017005

 Application No.  
 09/826,752

**Information Disclosure Statement  
 by Applicant**

(Use several sheets if necessary)

(37 CFR §1.98(b))

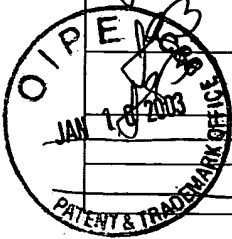
 Applicant  
 Leonard P. Guarente et al.

 Filing Date  
 April 5, 2001

 Group Art Unit  
 1631

**Other Documents (include Author, Title, Date, and Place of Publication)**

Examiner Initial	Desig. ID	Document
JP	APP	Pereira-Smith and Smith, "Genetic analysis of indefinite division in human cells: Identification of four complementation groups", <i>Proc. Natl. Acad. Sci. USA</i> 85:604-60462 (1988)
JP	AQQ	Pohley, "A formal mortality analysis for populations of unicellular organisms ( <i>saccharomyces cerevisiae</i> )", <i>Mechanisms of Ageing and Development</i> 38:231-243 (1987)
JP	ARR	Pringle <i>et al.</i> , "Fluorescence Microscopy Methods for Yeast", <i>Methods in Cell Biology</i> 31:357-435 (1989)
JP	ASS	NCBI Accession No. P46955, Submitted AUG-1995
JP	ATT	NCBI Accession No. P25339, Submitted MAY-1996



Examiner Signature

Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.